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ABSTRACT

The importance of state planning for comprehensive personnel development prompted this topic to be used as the theme for the 1971 State Directors' Leadership Development Seminar. Following the Seminar, a committee drew together the concepts presented plus additional information for inclusion in this publication. More efficient and effective development of vocational personnel is needed in order to meet the demands of schools throughout the nation. This includes personnel for the functional roles, for differentiated responsibilities, and those employed in all phases of education. Seven components included in the delivery system of such a program are: (1) mission and goals, (2) needs assessment, (3) priority determination and resource, (4) program design and operation, (5) student/employee recruitment, (6) program assessment, and (7) roles, relationships and responsibilities. Sequential steps that might be used in the design of a master plan are presented along with conclusions and recommendations. (GEB)

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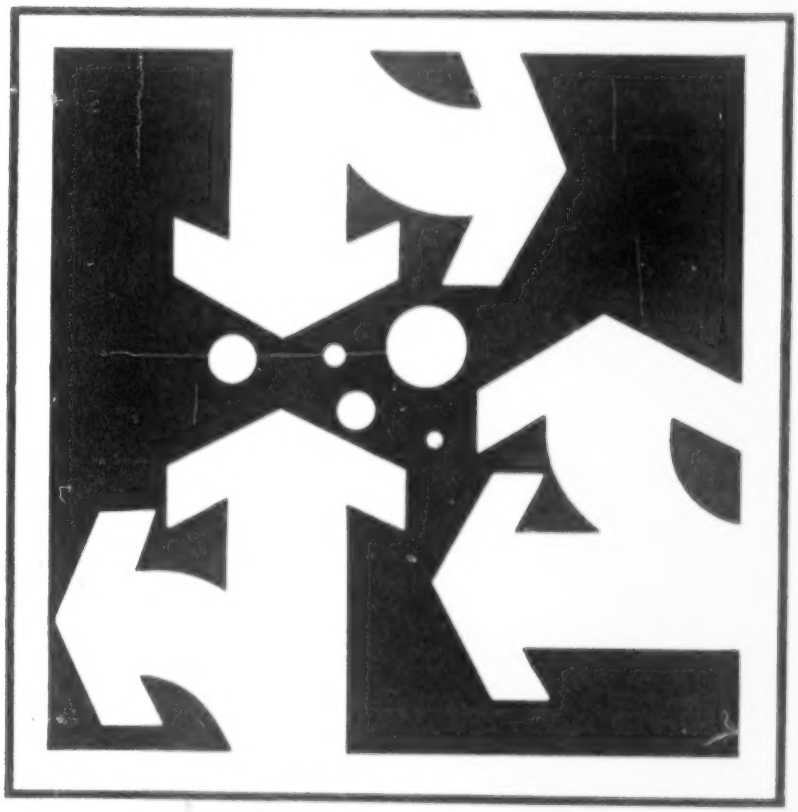
LEADERSHIP TRAINING SERIES 37

A MODEL FOR A COMPREHENSIVE PERSONNEL DEVELOPMENT SYSTEM IN VOCATIONAL EDUCATION



A STAFF PAPER OF THE 1971 NATIONAL LEADERSHIP DEVELOPMENT SEMINAR FOR STATE DIRECTORS OF VOCATIONAL EDUCATION

Carl J. Schaefer
Darrell Ward

VT 015 919

MISSION OF THE CENTER

The Center for Vocational and Technical Education, an independent unit on The Ohio State University campus, operates under a grant from the National Center for Educational Research and Development, U.S. Office of Education. It serves a catalytic role in establishing consortia to focus on relevant problems in vocational and technical education. The Center is comprehensive in its commitment and responsibility, multidisciplinary in its approach and interinstitutional in its program.

The Center's mission is to strengthen the capacity of state educational systems to provide effective occupational education programs consistent with individual needs and manpower requirements by:

- Conducting research and development to fill voids in existing knowledge and to develop methods for applying knowledge.
- Programmatic focus on state leadership development, vocational teacher education, curriculum, vocational choice and adjustment.
- Stimulating and strengthening the capacity of other agencies and institutions to create durable solutions to significant problems.
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LEADERSHIP TRAINING
SERIES NO. 37

A MODEL FOR A COMPREHENSIVE STATE PERSONNEL DEVELOPMENT SYSTEM IN VOCATIONAL EDUCATION

A Staff Paper Of The 1971 National
Leadership Development Seminar For
State Directors Of Vocational Education

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U.S. DEPARTMENT OF
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PREFACE

The combination of continued expansion, changing focus, and new direction for occupational preparation makes of extreme importance the efficient development of personnel to man the public and proprietary schools of this nation. Increasing demands for occupational preparation within the total concept of career education for all students will require programs of vocational preparation which are innovative, effective, and relevant to the needs of today's citizens and our complex economic and societal conditions. These programs will be no better than those individuals available to staff the instructional, administrative, and support stations of our local and state educational agencies and institutions.

The importance of state planning for comprehensive personnel development caused The Center and the National Association of State Directors of Vocational Education to focus upon this topic as the theme for the 1971 State Directors Leadership Development Seminar. This seminar, held in Las Vegas, Nevada, September 1971, provided presentations, discussions, and other activities concerned with planning for personnel development in the states. Following the seminar, a committee drew together the concepts presented and, coupling this with other information and developments, prepared this publication which presents a model for a comprehensive personnel development system in vocational education. It is hoped that the publication will serve as a useful tool to states in planning comprehensive personnel development programs for vocational education.

We would like to express sincere appreciation to Dr. Carl Schaefer, Professor, Rutgers University, The State University of New Jersey, for his work in the development of this manuscript. Dr. Schaefer participated in the program of the 1971 seminar and assumed initial responsibility for the manuscript development. Dr. Darrell Ward, Assistant Director, Research and Development Operations, The Center, directed the seminar and has worked jointly with Dr. Schaefer in the development of the paper.

Special recognition is given to the committee of state directors of vocational education who chaired the seminar's small group meetings where much of the material for the publication was developed. In addition to preparing summaries of the small group discussions for use in the publication they have served as reactors to paper drafts. Those directors were: Neal Andrew, New Hampshire; Ernest Kramer, Washington; Cecil Johnson, South Carolina;

and Jack Struck, Pennsylvania. Recognition is also given to Dr. Dorothy Ferguson who provided editorial revisions and to Nancy Lares who assembled and organized much of the content material.

Robert E. Taylor
Director
The Center for Vocational
and Technical Education

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SUMMARY

Vocational education, occupational education, manpower development--whatever the title--cannot be any better than the people in it. This is perhaps an oversimplification of a very complex problem that has plagued vocational education for decades. And at a time when our nation is facing a severe test of its way of life, the question is raised, "Are those in vocational education prepared for the challenge?"

Commissioner Marland has said.

> . . . All education is career education or should be. And all our efforts as educators must be bent on preparing students either to become properly, usefully employed immediately upon graduation from high school or to go on to further formal education. Anything else is dangerous nonsense. (Marland, 1971)

The development of a comprehensive state system of personnel development is related to the process of accountability--a fact that can no longer be ignored by the leadership responsible for vocational education within each state. In its broadest sense, the term "vocational education personnel" encompasses the entire spectrum of persons required for effective maintenance, extension, and improvement of existing programs, as well as development of new programs. This includes:

1) Personnel for the functional roles in vocational education, including;

   Instruction,
   Administration/Supervision/Coordination,
   Guidance,
   Research and Development,
   Curriculum/Instructional Materials Development,
   Youth/Adult Leadership Development;

2) Personnel for differentiated responsibilities within the functional roles from the paraprofessional through the post-doctorate preparation levels;

3) Personnel employed within both public and private local/area educational agencies, state departments of education, universities, federal educational agencies, industry and

business, and others. In addition and not to be ignored are (a) lay members of educational policy-making and advisory groups, such as legislators and members of boards, advisory committees, councils, and commissions; and (b) non-educational public agency personnel who relate closely to vocational rehabilitation personnel.

Clearly, any well designed schema for personnel development systems should take into account levels and types of performance for purposes of staff differentiation. For example, an adequate personnel development system for instructional staff should: (1) help to alleviate professional manpower shortages and encourage teachers to remain in the educational profession, (2) increase the efficiency and effectiveness of instructional personnel, and (3) provide improved educational services to students. Performance-based staff differentiation involves, therefore, an analytical breakdown of the tasks necessary to accomplish the goals of the educational enterprise. As such, it is a process of identifying and classifying the duties, tasks or roles which the educational system requires and then defining the types of personnel needed and assigning qualified personnel to sets of tasks. Carried to the ultimate, the task analysis could be used in many ways, such as in recruiting and selecting personnel, establishing parameters for various positions, and evaluating the performance of personnel.

The Delivery System

The delivery system of a comprehensive state plan for personnel development includes seven separate yet interwoven components that can be identified as the: (1) mission and goals, (2) needs assessment, (3) priority determination and resource, (4) program design and operation, (5) student/employee recruitment, (6) program assessment and (7) roles, relationships and responsibilities.

Roles, relationships and responsibilities with and within agencies and institutions involve the notions of coherence--relevance to the whole or the pieces that make up a coherent and logical totality; cohesiveness--banding together or making cohere; cooperation--interrelationship of two or more agencies or institutions for the good of the total; and control--responsibility and accountability for the system.

In regard to coherence, cohesiveness, cooperation and control, the roles of state agencies for vocational education, local and/or area agencies (LEA's), universities and colleges, professional organizations, federal agencies, and business and industry are all important resources for any successful personnel development system.

Exemplary Model Programs

In the design of a master plan, as evidenced by states such as Ohio and Oklahoma, it would be well to consider the following sequential steps.

1) Prepare a rationale for a statewide personnel development professional system in vocational education.

2) Appoint a state-level administrator who has the responsibility and necessary authority to provide leadership in the design, implementation and administration of a coordinated statewide system for professional development in vocational education.

3) Appoint a statewide coordinating council consisting of teacher educators, supervisory personnel, local vocational education administrators and students to coordinate and periodically appraise the system. The coordinating council should:

   a) Consider emerging and unique aspects of vocational education which have implications for teacher education;

   b) Assist in determining vocational education personnel performance requirements and competencies and sources of supply;

   c) Assist in formulating statewide goals for preparing vocational education personnel program objectives.

4) Determine statewide vocational education professional personnel needs by service areas, including administrative, supervisory, instructional, technical and instructional aides.

5) Formulate major vocational education personnel development goals.

6) Identify state and institutional constraints and restraints regarding vocational teacher education, i.e., limited resources, certification standards, institutional philosophies and objectives, etc.

7) Prepare a master plan for personnel development with long-range projections for the development and financing of such a plan.

8) Review plan with supervisory staff, teacher educators and coordinating council providing for any necessary adjustments and/or modifications.

9) Implement plan and periodically appraise its effectiveness in meeting the objectives and professional personnel needs on which it was based.

Resources Available

At the moment, Part F of Title II of the Vocational Education Amendment of 1968 gives impetus to vocational personnel development. At the same time, the necessary resources were and have been available all along to assure the development of a comprehensive system. It is only now that the states are beginning to realize the need for a concerted effort through federal, state and local resources. Business, industry, governmental and the military need to be included in the system as potential resources.

The fact remains that no state has yet found a way to reflect the prestige of the professional updating needed to eliminate once and for all obsolescence on the part of educators. In contrast to business and industry, where personnel is singled out for development programs, the education profession leaves the process of in-service education, the updating of an individual, to one's own motivation and limited resources.

Suggested Federal and State Action

The personnel development system within our profession has been measured and found inadequate. There is neither the quantity nor quality of personnel needed to move forward the vocational-technical component of the educational system. Capable administrators, teachers and ancillary personnel are in short supply.

The following recommendations are made with the hope that they will aid in the establishment and further refinement of comprehensive state personnel development systems for vocational education.

1) The state director of vocational education should assume the responsibility for developing the system by:

   a) Assigning the planning function to staff members;
   b) Assisting in need identification--particularly in determining long and short-range goals and objectives;
   c) Identifying and budgeting needed finances.

2) A coordinator for personnel development should be named in each state as the person held accountable for the implementation and operation of the system.

3) Emphasis should be given to the need for specialized personnel development for both urban and rural settings.

4) School administrators at all levels should be included in the endeavor; general as well as vocational administrators must be included in the program.

5) Teacher educators should be included in the personnel development activities since they need updating as much as any of the population being served.

6) An advisory council should be formulated, consisting of representatives from professional development institutions and agencies, employers of the product, the state agency for vocational education, and students to coordinate and periodically appraise the personnel development system.

7) The rewards emanating from a personnel development program should be measured in terms of one's being able to function with competency rather than in terms of credits or degrees. Evaluation of the system should be structured with this in mind.

8) In the spirit of a comprehensive statewide personnel development system--so should there be some sort of national effort. To assist in the establishment of national goals and objectives, there should be periodic national meetings and conferences for the respective state coordinators to discuss common problems and linkage which will benefit the national educational system as a whole.

A MODEL FOR A COMPREHENSIVE STATE PERSONNEL DEVELOPMENT SYSTEM IN VOCATIONAL EDUCATION

A RATIONALE FOR A COMPREHENSIVE PLAN

PAST PERSPECTIVES

The personnel development system within our profession has been measured and found inadequate. There is neither the quantity nor quality of personnel needed to move forward the vocational component of the educational system. Qualified administrators, teachers, and ancillary personnel are in short supply.

The rationale for personnel development is quite simple; a system for vocational education, occupational education, manpower development--whatever the title--cannot be any better than the people in it. This, of course, is an oversimplification of a very complex problem that has plagued vocational education for decades. What have appeared in the past to be new and exciting answers to the problem of personnel development have frequently faded away after short or crash efforts, leaving those who took part with but a temporary infusion for the tasks at hand. The process never has been one of a continued thrust over a long period of time.

However, as in no other time in history, vocational education is riding the crest of a wave of support, a support that comes from everywhere. The U.S. Education Commissioner for the first time has set "career education" as his number one priority. The National Advisory Council on Vocational Education has achieved a public awareness, through the public media, second to none in our history; the State Advisory Council's voices are beginning to be heard; the American Vocational Association is playing a bigger and bigger role in educational policy making and legislative action; and advocates from heretofore unrealized sources are also being heard.

If the personnel were available to ride the wave to its maximum, education could be changed, as Commissioner Marland envisioned in his talk before the National Association of Secondary School Principals:

> How absurd to suggest that general knowledge for its own sake is somehow superior to useful knowledge. 'Pedants sneer at an education that is useful,' Alfred North Whitehead observed. 'But if education is not useful,' he went on to ask, 'what is it?' The answer of course, is that it is nothing. All education is career education or should be. And all our efforts as educators must be bent on preparing students either

2/3

> to become properly, usefully employed immediately upon graduation from high school or to go on to further formal education. Anything else is dangerous nonsense. (Marland, 1971)

The facts are that vocational education personnel development is not preparing the people for the challenge of career education. Crash efforts in personnel development have been ineffectual, lacking in continuity and amounting to nothing more than small encounters with a large and complex problem.

Looking at the past from another perspective, a study of vocational and technical education personnel projected the need for new vocational education teachers by 1975 to be between 38,800 and 43,700 and the need for state ancillary personnel to increase from a little over 8,000 to well over 22,000 (Office of Education, 1970). Even more disconcerting, the report went on to identify the need for some eight million teachers for "cluster curriculums." If 55 percent of secondary school students are enrolled in what is called the general curriculum--such teachers need to be retrained and redirected towards the new career education endeavor from the ranks of existing staffs. Although Somers (1971) warned that projections of this nature should carry the label *caveat emptor* ("let the buyer beware"), figures of this magnitude give one something to think about in light of the meager output of vocational personnel, let alone regeneration or self-renewal of existing personnel.

In recent times, there have been, however, many attempts by the education profession to retread and revitalize certain aspects of the profession, beginning with the success of the first Russian Sputnik which triggered the National Defense Education Act and its resultant summer institute programs as well as the National Science Foundation effort. Several states, such as Ohio, Oregon, Michigan, and New York, mounted leadership development programs, even though they found them to be costly endeavors. More and more extensions of school contracts are being written to include a week or two at the end of the school year for professional growth activities. The American Vocational Association, the Office of Education and the vocational education research and development centers have provided special conferences and seminars. But, even by adding all these up and doubling their sum total for those efforts that may be overlooked, the impact is still weak, a nondescript and uncoordinated system of keeping vocational education viable.

A light on the horizon appears to be Part F of the Education Professions Development Act (EPDA), especially Section 553. However, even this may be lost as a result of the lack of systematic, longitudinal planning, unless each state structures a sound program of personnel development. Unfortunately, the fellowships provided under Section 552 have not succeeded in stampeding

potential talent toward advanced degree programs, and the summer institutes (Section 553) provided in most states do not operate to capacity. Nevertheless, the designers and operators of the EPDA effort should receive a vote of thanks, because it does represent a bold first step toward a comprehensive system of personnel development.

PERSONNEL VITALIZATION

Much has been written about educational accountability, or the lack of it, in the educational process. Accountability, according to Leon Lessinger (1971), is:

> . . . the product of a process in which an agent, public or private, entering into contractual agreement to perform a service, will be held answerable for performing according to agreed upon terms, within an established time period and with a stipulated use of resources and performance standards.

Application of such a definition to all levels of educational personnel is indeed not outside the grasp of the education profession. It does, however, pose some elements that have not been considered too important in the past; such as personnel being held answerable within specific time periods, with stipulated resources, and according to agreed upon and acceptable performance standards. Development of all personnel must be accomplished with the ultimate accountability for performance uppermost in our minds.

Teachers

Teachers are in need of a systematic, planned program of continued professional development. The New Jersey Educational Association (*NJEA Review*, 1971) had this to say about personnel development and teacher evaluation:

> Most current evaluation of teacher performance is job oriented. Career development has been sadly lacking . . .
>
> Behavioral psychology tells us that people respond better to challenge than to threat, better to praise than to criticism. The surest way to increase the effectiveness of any professional is to surround him with productive peers, expose him to new ideas and stimulate him into constructive analysis of his own performance.
>
> Many professionals in all fields operate capably in their jobs at less than their maximal level of production or efficiency. Accordingly, industry spends

considerable amounts to upgrade the performance of professional-technical and middle management personnel. Schools make little comparable effort to upgrade the efficiency of their professional personnel--the teachers.

It is unfortunately true that in the vocational education profession it is by chance that teachers keep up-to-date with occupational technology. Within their particular trade or occupational areas, teachers' expertise is not often esteemed by their tradesmen counterparts. It is also true that college preparatory courses in teacher education are not what they should be, that many teacher educators themselves are outdated in their subject expertise. The problem of producing capable teachers through preservice teacher education programs and keeping teachers up-to-date by means of in-service vocational teacher education programs has certainly not diminished over the years.

Administrators

The problem of the professional development of administrators is even more acute. Too infrequently the most advanced techniques of modern business management practices are injected into administrative programs; even less frequently administrative personnel in education make the effort to update themselves in the latest managerial techniques. It rarely occurs that once the peculiar yet effective characteristics of a particular administrator are identified, that he or she has the opportunity to apply these attributes to a number of situations and locations in which they are needed; that when an exceptionally talented administrator builds a building, for example, that his talents and know-how are then used to build more than one building; that when an administrator is particularly sensitive to curricula needs in one school, that the interpersonal relations with staff needed to implement that curriculum are found to be used in a subsequent situation. Sherwood Dees takes this position in the new book *The Courage to Change--New Directions for Career Education*, when he states:

> The state vocational educational agency must encourage initiative. Its professional staff should not have tenure or civil service status. Instead, performance should be subject to regular review under administration supervision of the state board of vocational education. (Dees, 1971)

Actual requirements for administrative personnel, both in terms of numbers and competencies required, are difficult to determine. Data available from *The Education Professions* (Office of Education, 1970) indicate a three-fold increase in numbers of state and local administrative vocational education personnel required. However, recent experience, stemming in part from the

severe austerity of state budgets, indicates that the projected need may be far in excess of those new administrators who will actually be employed. The emphasis most surely will be on upgrading present personnel.

Ancillary Services

Ancillary services involve a whole new area of personnel development. The notion of the paraprofessional joining the education profession is only now becoming popular. As with administrative personnel, projected requirements are questionable. What is sure, though, is that an ancillary team effort, especially at the local level, will be needed to provide improved instruction. Application of the concept of career education will increase the need for ancillary personnel, especially guidance specialists.

PERSONNEL DEFINED

Adequate staffing implies both quantity and quality of personnel needed. In defining personnel in vocational education, the entire spectrum required to effectively maintain, extend and improve existing programs as well as to develop new programs must be considered. This includes as a primary target group:

1) Personnel for the functional roles in vocational education, including;

   Instruction,
   Administration/Supervision/Coordination,
   Guidance,
   Research and Development,
   Curriculum/Instructional Materials Development,
   Youth/Adult Leadership Development;

2) Personnel for differentiated responsibilities within the functional roles from the paraprofessional through the post-doctorate preparation level;

3) Personnel employed within both public and private local/area educational agencies, state departments of education, universities, federal educational agencies, industry and business, and others. In addition and not to be ignored are: (a) lay members of educational policy-making and advisory groups such as legislators and members of boards, advisory committees, councils, and commissions; and (b) non-educational public agency personnel who relate closely to vocational education, such as employment security and vocational rehabilitation personnel.

The breadth of such a definition becomes increasingly complex when examined in the three dimensional matrix shown in Figure 1. Here is illustrated the locus of employment possibilities for vocational education personnel, the possible role function of these personnel, and their classifications as to level of operation.

Clearly, any well designed schema for personnel development systems should take into account performance for staff differentiation. For example, an adequate personnel development system for instructional staff should: (1) help to alleviate professional manpower shortages and encourage teachers to remain in the educational profession, (2) increase the efficiency and effectiveness of instructional personnel, and (3) provide improved educational services to instructional staff. Performance-based staff differentiation involves an analytical breakdown of the tasks necessary to accomplish the goals of the educational enterprise. As such, it is a process of identifying and classifying the duties, tasks or roles which the educational system requires and then defining the types of personnel needed and assigning them to sets of tasks. Carried to the ultimate, the task analysis could be used in a number of ways, such as in recruiting and selecting personnel, establishing parameters for various positions, and evaluating the performance of personnel.

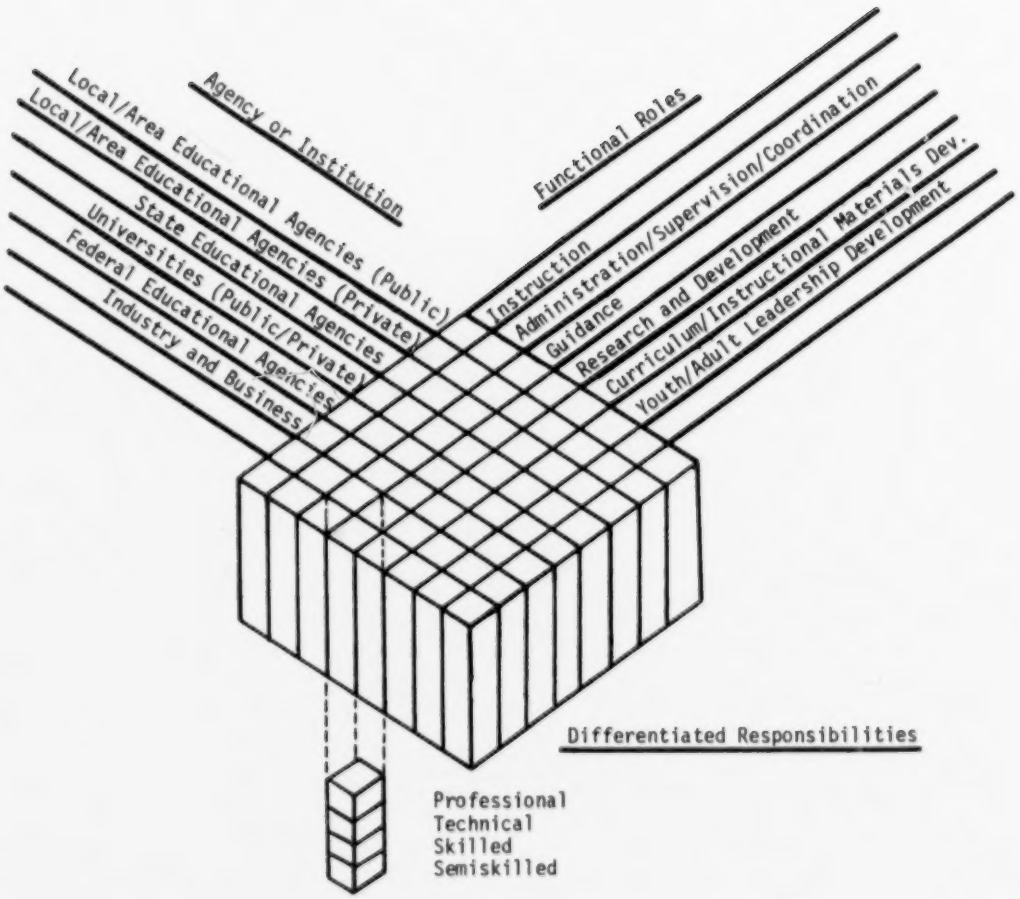


Figure 1. Professional Personnel Development Matrix

THE DELIVERY SYSTEM

The delivery system for personnel development must be closely tied with both the quality and quantity dimensions of the profession. At this point in time, it may be that the quality dimension outweighs the production of sheer numbers of personnel. As Dale Parnell, Superintendent of Public Instruction, in Oregon, put it:

> The past thirty years have seen great emphasis on quantity. It has been all educational managers could do to secure enough teachers, enough buildings, and enough buses. With the enrollment bulge on the flat side, it is safe to say the next ten to twenty years will be spent on dealing with quality in education. (Parnell, 1971)

As self evident as this statement is, in today's teacher employment market little argument can be raised against the need for a delivery system that once and for all guarantees an ample supply of personnel in terms of both quantity and quality. This section of the report is intended to develop a model comprehensive state personnel development system.

COMPONENTS OF A COMPREHENSIVE STATE PLAN

The components of a comprehensive state plan include seven separate yet interwoven components: (1) mission and goals, (2) needs assessment, (3) priority determination and resource allocation, (4) program design and operation, (5) student/employee recruitment, (6) assessment, and (7) roles, relationships and responsibilities (Figure 2).

The Mission and Goals

As described by Coster (1969), the mission and goals of a personnel development system for vocational education must be one of considerable breadth. In a forthright manner, he states the mission to be:

> . . . to enhance the educational, social and economic welfare of the state through the preparation and upgrading of personnel who are employed or to be employed in the vocational and technical systems of the state. (Coster, 1969)

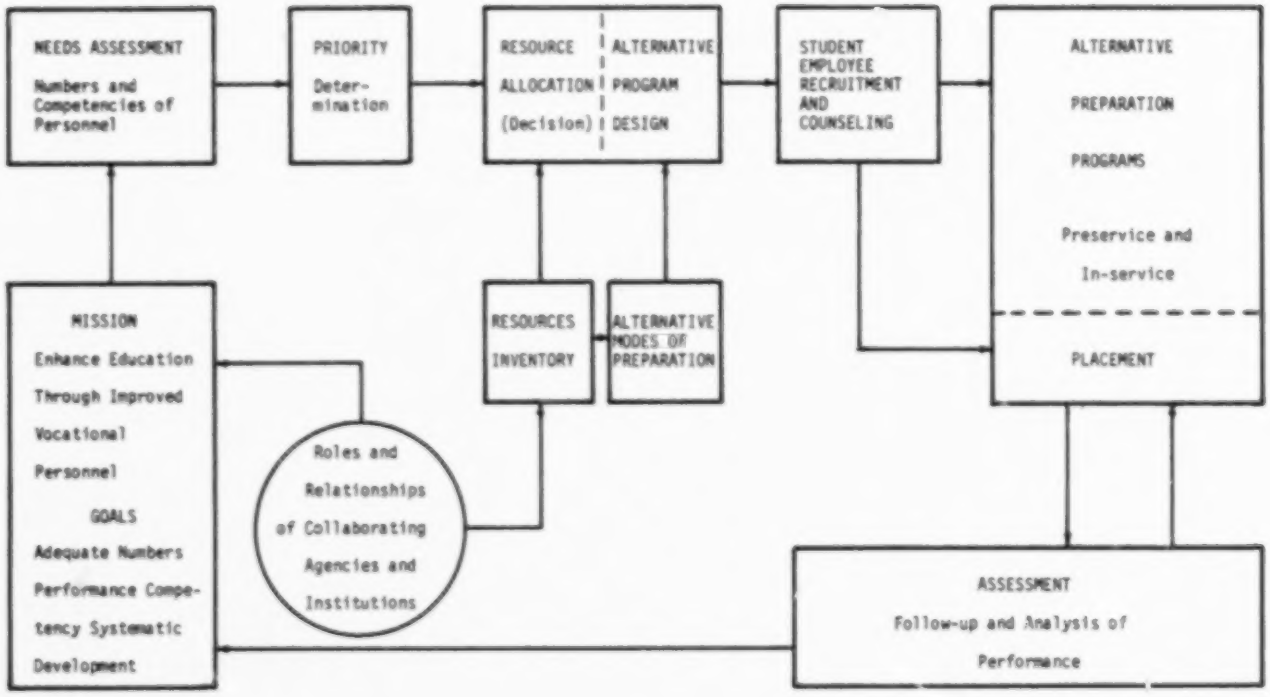


Figure 2. Components and Flow of a comprehensive state plan for personnel development in vocational education.

Relative to the goals, he describes them as being:

1) To provide an adequate supply of qualified personnel to staff the expanding programs in the vocational educational system of the state;

2) To upgrade the professional competencies of personnel now employed in the system;

3) To develop and implement procedures for a continuing input from the state system of vocational education into the professional development program.

Once such a mission is found acceptable by those who value personnel development, it then becomes necessary to proceed to the next and by far more complicated component, needs assessment.

Needs Assessment

Determination of needs, in the past at least, has involved doing something about a situation when confronted by that situation. Or, put another way, meeting a crisis when it arises. Such procedures have ignored the fact that personnel development takes time. Too little thought has gone into the process of needed personnel for emerging staffing on a long-range and functional basis. The problem becomes even more complex if the definition of personnel development by performance-based criteria, or staff differentiation as described in the personnel development matrix, is accepted as desirable. What is to be the need for the professional, technical, skilled, semiskilled and unskilled in the profession? How many of each are needed and are they going to be available at any given time to meet a given situation?

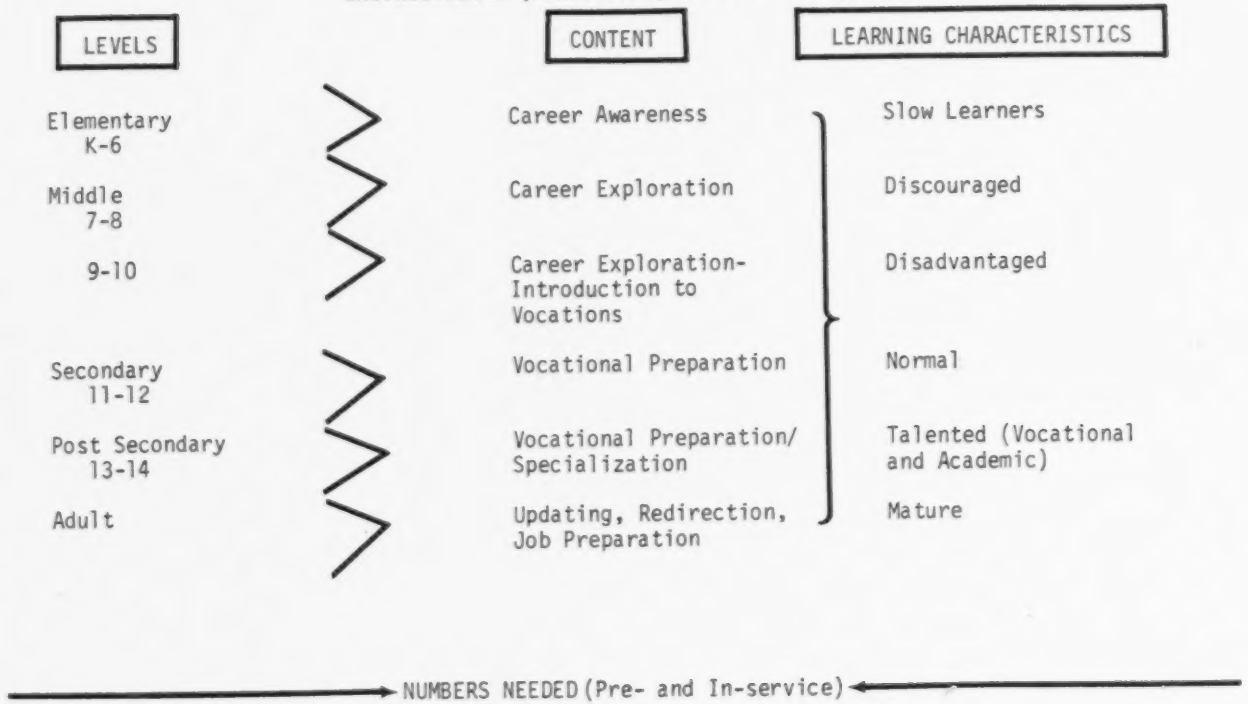
The determination of needs in terms of function applies not only to new personnel but to those already engaged in the system as well. Retraining, then, must be considered in needs assessment. Figure 3 delineates the need for instructional functional staffing of the total "career education" concept which prescribes the need for both preservice and in-service personnel assessments. Questions that must be raised are: (1) How many personnel are needed for staffing by levels, content and student learning styles? (2) Where are these personnel being produced and how (both in quantity and quality) are they being produced? (3) How can present personnel be retrained to fit these new functions?

The same questions must be asked about other personnel, such as:

State directors and supervisors
Assistant state directors

Figure 3

INSTRUCTIONAL (FUNCTIONAL) STAFFING PATTERN



Local directors and supervisors
State area supervisors
State guidance specialists
State research specialists
State youth specialists
State teacher trainers
State itinerant teachers
Institutional teacher trainers
Local and state curriculum specialists
Local guidance specialists
Administrative assistants
Local research specialists
Teaching aides
Clerical aides
Media technicians
Others

Priority Determination and Resource Allocation

Determining priorities obviously depends upon a combination of need and available resources. The latter has been used as a crutch for far too long in the education enterprise. The *a priori* practice of turning out teachers all of whom would be assured a position is past. An overabundance in some teaching and staffing areas and an undersupply in others is a reality of the years ahead. Where to place priorities, then, becomes the question. If, as Shoemaker (1971) has stated, management by objectives is the answer, then, setting priorities becomes somewhat easier. At the 1971 Seminar for State Directors of Vocational Education in Las Vegas, Nevada, the Ohio "management by objectives" plan was explained to include:

1) Identify the problems (goals);

2) Establish quantified objectives;

3) Identify resources;

4) Plan programs;

5) Establish costs; and

6) Make selections which will make the greatest contribution to goals.

In conclusion, Shoemaker stated:

> Only one thing is sure in vocational education, and that is change. I recognize that not all change is within the control of the state directors of vocational education, the state staff, local staff or even educational

leadership as a whole. Change can be brought about by changes in state budgets, federal budgets, local voting attitude and practices and parental and student attitudes. Such possibilities for change, however, do not absolve us of our responsibilities to plan boldly, to plan wisely, to invest carefully and to sell back the services which we believe are important to the solution of social and economic problems facing our nation.

The key here is knowing that the attainment of goals is through quantified objectives. For example, an objective stated in such terms as:

> To provide by 1975, a career exploration program for 299,170 or 75 percent of the 378,895 students at the ninth and tenth grade level of 14 and 15 years of age is precise in terms of effort and cost to reach the objective. The setting of priorities can then be seen in the reality of the situation by the state vocational decision-makers, state boards of education, and state legislatures who are providing the funding necessary in order to achieve the desired goals. (Shoemaker, 1971)

Program Design and Operation

All too often the provision for personnel preparation programs has not adequately considered alternative program design. A comprehensive state plan for personnel development in vocational education must take into consideration various alternative modes of preparing the individuals for which priority needs have been identified. Resources available for implementation of the state plan must be taken into consideration, alternative programs designed, and the preparation of individuals carried out. If at all possible, a system should provide a variety of channels whereby an individual can move into the role which he desires and which institutions and agencies require. The alternative preparation programs must include both preservice and in-service elements and take into consideration continual upgrading of professional staff and, in some instances, retraining for those who are in positions and have competencies no longer required.

Student/Employee Recruitment

In planning for systems of this nature, student/employee recruitment is also not given adequate consideration. Adequate student recruitment and counseling must be provided so that the numbers of prospective trainees who are well-suited to the individual roles and functions required can smoothly enter

preparatory programs. The system should provide for the necessary identification of pre-preparation program skills and accurate determination of employment potential so that individuals can be adequately matched in numbers and competencies to anticipated openings.

In some instances, filling of differentiated staff positions may not require training other than that which can best be conducted on the job. For these positions students may sometimes move directly from the employee recruitment component into on-the-job training and performance.

Program Assessment

Structured and formal assessment of the entire system must take place during its operation, but in particular assessment of the system's product must be conducted. Assuming that the system is based upon competencies required to adequately perform in the role and function designated, then an assessment plan must also take into consideration the analysis of performance. This will, of necessity, require a follow-up of former students and evaluation in terms of their actual performances on the job--both as self-assessed and as assessed by their employers. The importance of product assessment by performance standards cannot be too strongly stressed. Current work by the Bureau of Educational Professional Development through The Center for Vocational and Technical Education at The Ohio State University to develop a model for the evaluation of professional development programs promises to provide helpful procedures and mechanisms for accomplishing such assessment.

Roles, Relationships and Responsibilities of Agencies and Institutions[1]

Engineering a comprehensive system of personnel development requires concern for the roles, relationships and responsibilities of involved agencies and institutions. The meshing of these imperatives cannot be left to chance. Too often in the behavioral sciences, a "blueprint" is lacking to assure a successful structuring of anything which looks like a system. To the embarrassment

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[1]Papers by: F. Don James, "Identification, Development and Implementation of Elements in Effective Comprehensive Personnel Development Systems," and John F. Conners, "The Role of Industry in a Comprehensive Vocational Education Personnel Development and Utilization Systems," presented at the National Workshop on Comprehensive Vocational Education Development and Utilization, Washington, D.C., June 15-17, 1971 provided source material for much of this section.

of the behavioral engineer, the pieces never seem to quite fit together--even though blunders are sometimes not obviously apparent. Such "non-meeting" of the personnel development system continues to go unnoticed by vocational personnel development engineers.

The key notion in the words "roles," "relationships" and "responsibilities" has something to do with:

1) Coherence--relevance to the whole or the pieces that make up a coherent and logical totality;

2) Cohesiveness--bonding together or making cohere. A substance that assures the sticking together in purpose and endeavor;

3) Cooperation--interrelationship of two or more agencies or institutions for the good of the total;

4) Control--although a present-day misunderstood connotation, the word as used here implies responsibility and accountability for the system. Just where and how much control is essential is a question, but somehow the system must be controlled.

State Agencies for Vocational Education. The role of state agencies for vocational education in a comprehensive system of personnel development for vocational education is rather well established as one of cohesiveness and control. By statute, the state is supreme in public education matters. It sets minimum standards, assures funding, establishes goals and criteria, and attempts to provide leadership. Although state agencies for vocational education have been known to over extend themselves as well as to shirk their responsibilities, their role is clear-cut, whether it be exercised in direct-line fashion or through delegation. Few will argue this position in a statewide personnel development system.

Local and/or Area Agencies. The clientele needing personnel development are found where the action is--in local agencies (LEA's). The local school system as an employment agency provides the raw material needing professional development. In this sense, then, local education agencies have the role of cooperatives in the process. But an equally important role for an LEA is to supply inputs of coherence into the system. Coherence stems from what is needed on the "firing line" and through an analysis of what is happening as contrasted with what should be happening.

It is through the contribution of cooperation and coherence that relationships within the system are developed. Responsibilities of LEA's to the system occur at some subsequent time and well after the plan has been developed.

Universities and Colleges. As a cooperative, universities and colleges have a traditional role to play in any comprehensive state personnel development system. Without their role in pre-service and in-service teacher preparation and relationships with certification, universities and colleges would be genuinely missed. Ideally at least, they should provide a major input in terms of coherence or relevance of the development effort. And in vocational education, the generally accepted funding pattern assures some degree of this responsibility.

Professional Organizations. Professional education organizations have played a "behind the scenes" role in many aspects of a state's personnel development system. To be able to say that they supply a cohesiveness or even a coherent input is but to indicate two of their most potential contributions. But frequently, "splinter" groups emerge to challenge, and cohesiveness and coherence often give way to political considerations. Yet these tendencies, if overcome by the system as well as from the national professional organization level, make professional organizations one of the most logical contributors to any system of personnel development. Moreover, tradition points to a legislative role for vocational education. This has been apparent on the national level, especially through the efforts of the American Vocational Association. In the future it should become more apparent on the state level as well.

Federal Agencies. Few would argue the role of federal agencies, especially the U.S. Office of Education, as one of coherence. Ideally, the role and responsibility of the Office of Education for providing cohesiveness and cooperation should be considered equally important in any model personnel development system. Unfortunately, this is not always the case in practice. Good relationships and support "from the top" in the personnel development effort should include inputs from such organizations as The National Center for Educational Research and Development (NCERD), The Bureau of Adult, Vocational and Technical Education (BAVTE), and The Bureau of Educational and Personnel Development (BEPD).

The notion of control at this high level tends to diminish the maximum role that each of these organizations can play in any statewide personnel development system. Once this threat is removed, however, the coherence, cohesiveness, and cooperation influence of each does have a substantial contribution to make at even local levels.

Business and Industry. The too frequent "unsung" partners of the total vocational education effort have been business and industry. The coherence aspect of a functional personnel development system stems in a major way from the practices and technology that are employed at any point in time in the world of business and industry. To be embraced as a cooperative in the

total effort has long been sought by the vocational profession. The realization of business and industry as a cohesive element--sticking together in the purpose and endeavor--has long eluded the profession. Role expectations of business and industry, as well as responsibilities and relationships in the process of personnel development, have been slow to be defined and evasive in clear identification. Yet here lies one of the most valuable resources yet imagined.

Complexity of the System

The involvement of such a multitude of agencies, institutions and resources in itself, indicates the complexity of any system of personnel development. To be overwhelmed by these resources is but to yield to an excuse to let each "go it alone" and rationalize the outcome as one of accomplishment through competition. What is needed is to recognize these various resources and to utilize them as components of a whole which have more to contribute than any of its separate parts.

EXEMPLARY MODEL PROGRAMS[1]

The preparation of a state model for professional personnel development in vocational education has only recently received considerable attention. Credit must be given to the authors of the Education Professions Development Act (PL 90-35) for focusing the spotlight of attention on the problem.

GOALS OF A MODEL

Any state model for professional personnel development in vocational education, to be comprehensive in nature, must be guided by a set of carefully developed and clearly stated goals which the model is designed to meet.

To illustrate, some suggested goals for a professional personnel development model follow:

1) To predict and project the needs and/or demands for vocational professional personnel;

2) To assure an adequate supply of adequately prepared professional personnel which is commensurate with either existing and/or projected needs;

3) To optimize the efficiency and effectiveness of a professional personnel development system;

4) To identify and coordinate in-service activities of state administrative and teacher education personnel;

5) To assure, to the extent possible, geographic availability of both preservice and in-service personnel development activities;

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[1]The major portion of this section has been adopted from a paper prepared by Darrell L. Parks, "A State Model for Professional Personnel Development in Vocational Education," presented at The National Workshop on Comprehensive Vocational Education Professional Personnel Development and Utilization, June 15-17, Washington, D.C., 1971.

6) To assist in setting policy and standards for the certification of professional personnel among the various program areas with the division of teacher education and certification in the state department of education and coordinate professional personnel development institutions and agencies in line with such policy and standards.

MODEL VARIABLES

Any statewide model for the development of personnel for vocational education must assume a high degree of flexibility in view of the numerous variables which are involved (Figure 4).

1) Program Variables--Although in recent years much time and effort has been directed toward identifying the common elements which are appropriate and applicable in the preparation of all vocational professional personnel, the fact still remains that there exist some unique program elements which are important in the preparation of selected personnel. A personnel development model must recognize such differences and provide for them.

2) Target Population Variables--Most programs which have addressed themselves to preparing vocational professional personnel have focused primary attention upon the preparation of teachers, without directing sufficient attention toward providing programming specifically for supervisors, administrators, teacher educators, guidance personnel, and instructional/administrative aides. A comprehensive personnel development model must provide for specific populations to be served and plan objectively for each population grouping.

3) Quantities to be Served--Any model for personnel development must possess the characteristic to adjust to ever-changing supply and demand factors. Such adjustment must be accomplished with relative quickness in order to meet immediate and/or unanticipated emergencies regarding the need for professional personnel.

4) Activity Variables--These variables reflect directly upon considerations of design and implementation, including the group to be served, and the availability of input resources (staff, budget, facilities, and time of offering, etc.).

5) Resource or Input Variables--Although a professional personnel development model is highly dependent upon the financial appropriations of state and federal agencies (as is vocational education), it must not be so rigid

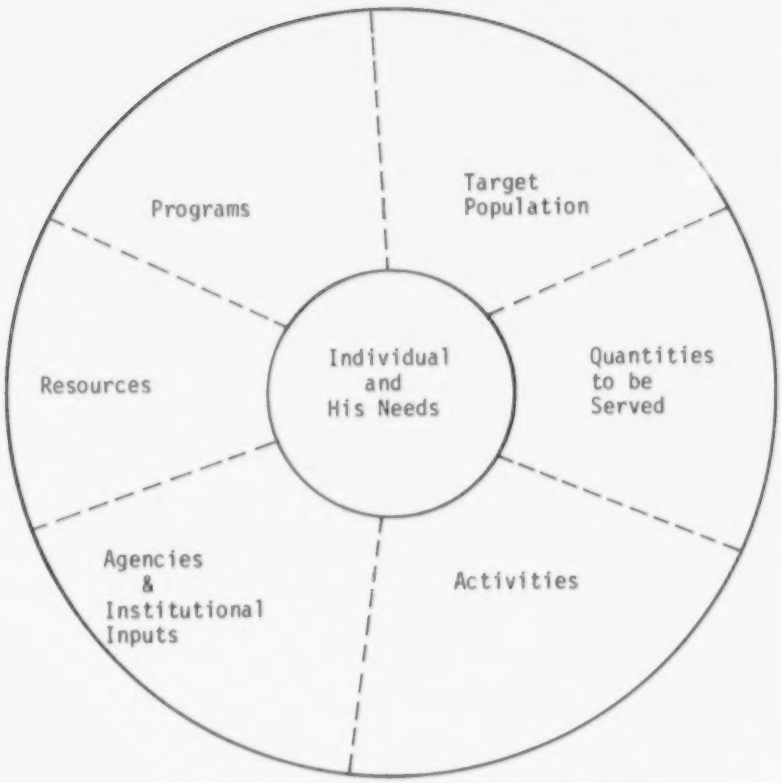


Figure 4. Personnel Development System Variables Continually Revolving Around Needs of the Individual

that it cannot adjust to and fluctuate with financial resources.

6) Agency/Institutional Input Variables--Conflicting differences in philosophies and objectives on the part of cooperating agencies and institutions involved in the application of a professional personnel development model are also important variables. Model design must recognize such differences, if in fact they do exist, and employ the necessary techniques to resolve or compromise them.

FEATURES OF THE SYSTEM

The ensuing outline lists and describes specific features of the comprehensive state personnel development system.

I. The State Agency for Vocational Education

The role of the state agency in the preparation of vocational education personnel includes:

- Long-range planning in the development of an effective statewide program of professional personnel development.
- Planning involving continuous participation of all groups concerned with the quality and size of the teaching force.
- Research as a prerequisite to planning.
- Providing (a) specific information, (b) technical assistance, (c) directional leadership, and (d) stimulation and encouragement.
- Exercising the consultative function involving cooperative participation of all groups in the state involved in or concerned with the education and certification of professional personnel.
- Serving as the coordinating agency for colleges and universities preparing professional personnel in the development, improvement, and evaluation of their programs of professional personnel development.
- Assisting in making professional personnel development institutions more keenly aware of the special needs of professional personnel in schools.
- Providing services of resource persons.

Recruiting and selecting personnel.

Providing for the exchange of information, ideas, and attitudes among individual citizens, organizations, teachers and administrators.

Encouraging the legislature to establish and maintain colleges for personnel development wherever and whenever necessary to assure an adequate supply of well-qualified professional personnel.

II. The Coordinator for the Development of Professional Personnel for Vocational Education

A. Administrative Duties

1. Give leadership and coordination to the organization, supervision and evaluation of professional personnel development activities among all vocational program areas.

2. Serve as liaison between the state agency for vocational education and cooperating vocational-technical professional personnel development institutions and agencies.

3. Administer the state education professions development program in accordance with provisions set forth in the Education Professions Development Act, including the following:

a. Serve as a resource person for the Advisory Committee for the state education professions development program.

b. Serve as chairman of the cooperative arrangements application review committee and provide assistance to any agency developing applications for cooperative arrangements regarding the state education professions development program.

c. Identify crucial and urgent needs and establish priorities for meeting those needs in the recruitment and training of professional personnel.

d. Disseminate information regarding the state education professions development program.

e. Assist in the recruitment of professional staff and program participants.

f. Provide coordination of cooperative arrangement programs with other education professions development programs.

g. Administer financial provisions and grant terms and conditions and insure that funds do not supplant state and local funds.

h. Provide leadership in the development of state supervisory personnel for long-range planning relating to the state education professions development program.

4. Provide leadership in planning and conducting an in-service education program to promote and further staff the state's requirements.

5. Review and maintain relevant vocational professional personnel standards in accordance with state teacher education and certification provisions.

6. Provide leadership in the coordination and operation of curriculum materials services in all vocational education program areas.

B. Supervisory Duties

1. Supervise vocational professional personnel development programs at the cooperating institutions of higher learning and other appropriate agencies.

2. Provide supervisory services for programs arranged on a cooperative basis across occupational service lines.

3. Require and review as a means of assessing status reports as necessary to determine compliance with appropriate state standards regarding vocational-technical programs and curricula.

C. Reporting Duties

1. Maintain all records concerning the professional preparation and in-service education of vocational education teachers and supervisory and administrative personnel in the state in accordance with state financial involvement.

2. Maintain all appropriate records concerning the state professions development program, including such provisions as prescribed in the Education Professions Development Act.

3. Provide information to the fiscal officer in the state agency for vocational education required for the issuance of vouchers for reimbursement to such institutions and agencies performing professional personnel development services in cooperation with the state agency.

4. Prepare such reports as are required by the director of the state agency for vocational education, state superintendent of public instruction, and state board of education to evaluate the status and progress of the program and assess the effectiveness of the administration and supervision of said program.

5. Prepare the statistical and descriptive materials as called for in the Annual Report required of the Division of Vocational Education by the U.S. Office of Education, Department of Health, Education and Welfare.

D. Consultative Duties

1. Provide consultative services to cooperating institutions of higher learning and other appropriate agencies regarding vocational education professional personnel development programs and curricula.

2. Provide consultative services at the state and national levels regarding cooperative arrangements related to the state education professions development program.

E. Coordination and Evaluation

1. Coordinate the organization, supervision and evaluation of curriculum development and professional personnel development activities among all vocational program areas.

2. Assist in developing evaluation standards and evaluation designs for cooperative arrangement programs.

III. The Coordinating Council

This group should be comprised of representatives from professional personnel development institutions and agencies, employers of the products from such institutions, students, and state department of education officials.

A. Purpose of the Council

1. Coordinate and periodically appraise the vocational education professional preparatory and in-service personnel training program in terms of its effectiveness in meeting immediate and anticipated vocational education professional personnel needs.

2. Be responsible for:

   a. Identifying unique and emerging aspects of vocational education which have implications for teacher education;

   b. Evaluating fundamental vocational education teacher performance requirements and competencies;

   c. Identifying sources of potential teacher supply;

   d. Assisting in formulating statewide goals leading to the development of a master plan for preparing professional personnel in vocational education.

B. Authority of the Council

To function in an advisory capacity for the state agency for vocational education regarding the development, implementation, execution, and evaluation of a statewide coordinated professional personnel preparatory and in-service training program.

C. Composition of the Council

Council chairman should be the delegate of the state director of vocational education.

Other members might include representatives of service areas from both the state agency and university settings, representatives of local educational agency administrators, both general and vocational, and individuals whose responsibilities cut across all service areas at both the state agency and university levels.

Perhaps of most critical need for inclusion will be the direct recipients of the delivery system's procedures, the students of the personnel development system.

The State Director of Vocational Education should serve as an ex-officio member of the council.

IV. A Master Plan for a Statewide Professional Personnel Development System for Vocational Education

The master plan provides direction and a basis for periodic appraisal of the system.

Such a plan should be developed in conjunction with the coordinating council for professional personnel development and carry its endorsement.

Essential features of the plan should include the following:

- Major goals of institutions and agencies preparing vocational professional personnel
- Common components of a vocational professional personnel development curriculum
- Projected vocational professional personnel needs (annual and five-year projections by taxonomy)
- Guidelines for cooperative arrangements between the state department of education and professional personnel development institutions and agencies
- Appraisal criteria for determining the efficiency and effectiveness of professional personnel development programs

V. Implementation of the Model

A. Appoint a coordinator for the development of professional personnel for vocational education. Such an appointee should enjoy administrative authority and responsibility, reporting directly to the state director of vocational education.

B. Appoint and organize the coordinating council for professional personnel development for vocational education in compliance with procedures already discussed. A council meeting should be called shortly after all appointments have been effected in order to acquaint it with its purpose and functions and solicit its assistance in the further development and refinement of the model as it is being implemented.

Simultaneously, while the coordinating council is being organized, the coordinator for the development of professional vocational personnel should personally tour each institution/agency campus which has responsibility for the preparation of vocational professional personnel

for the purpose of meeting with professional staff and administration to better acquaint them with his role and relationship with their respective program(s). This particular step is extremely important in promoting understanding and dispelling any apparent apprehensions regarding an immediate and complete upheaval of existing programs. Such a tour also offers the coordinator insight into the condition of existing programs and an opportunity to become acquainted with any problems and concerns.

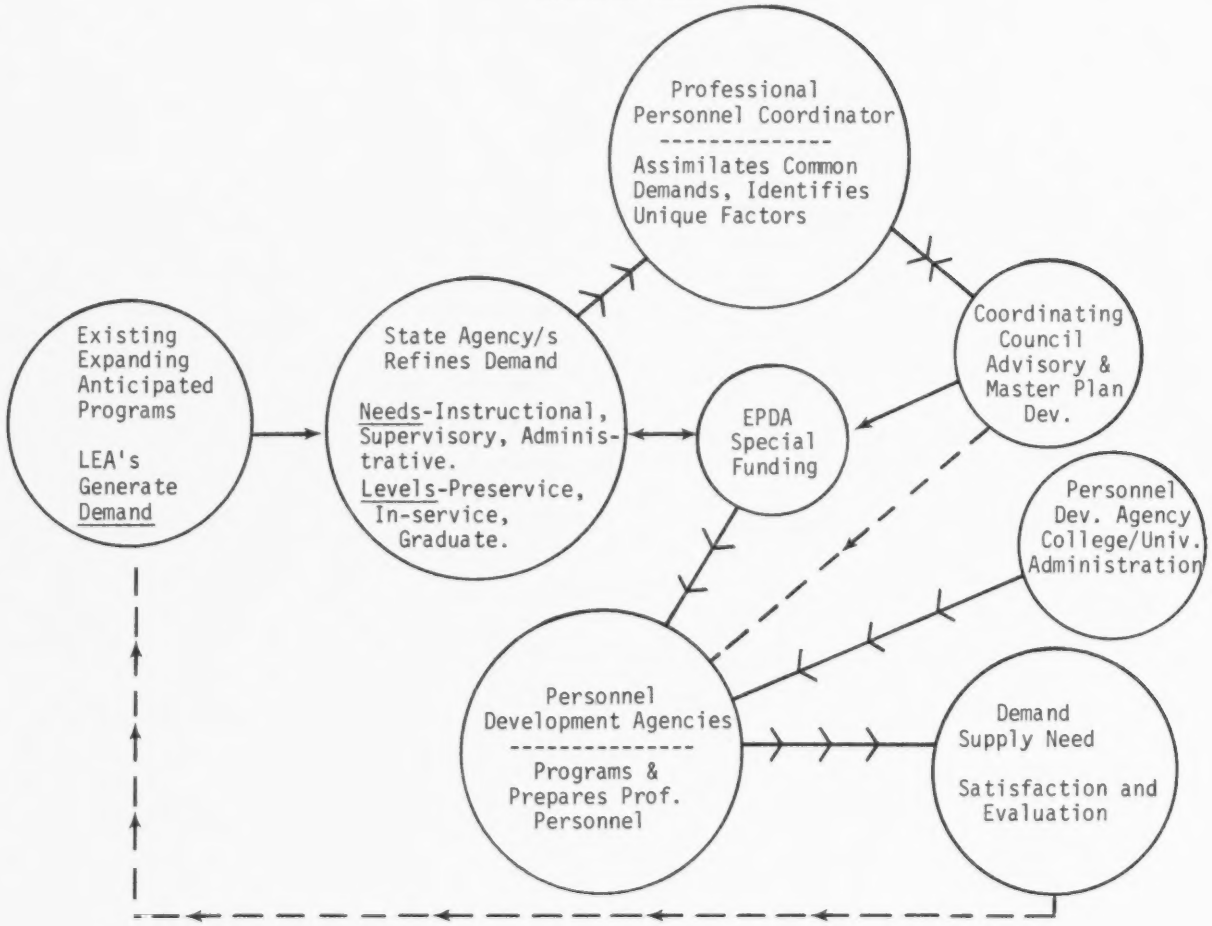
C. Initiate a master plan for a statewide system for the development of vocational professional personnel. Such a plan, once completed, can provide valuable information and data for decision-making regarding future professional personnel program development. Upon completion and acceptance of the master plan by those agencies concerned with its operational aspects, it becomes the role of the coordinator for the development of professional personnel to administer such a plan in accordance with the guidelines and provisions which it sets forth.

   The need for periodic review and updating of this plan by the state agency for vocational education and the coordinating council is essential in an attempt to maintain its relevancy in addressing the problems at hand.

Diagrams illustrating the essential components of the model and the flow of activities and events are presented in Figures 5 and 6. These diagrams, taken from presently operating systems in Ohio and Oklahoma, illustrate in part operation of the system previously described.

Figure 5. A MODEL FOR THE DEVELOPMENT OF PROFESSIONAL PERSONNEL FOR VOCATIONAL-TECHNICAL EDUCATION

STATE OF OHIO



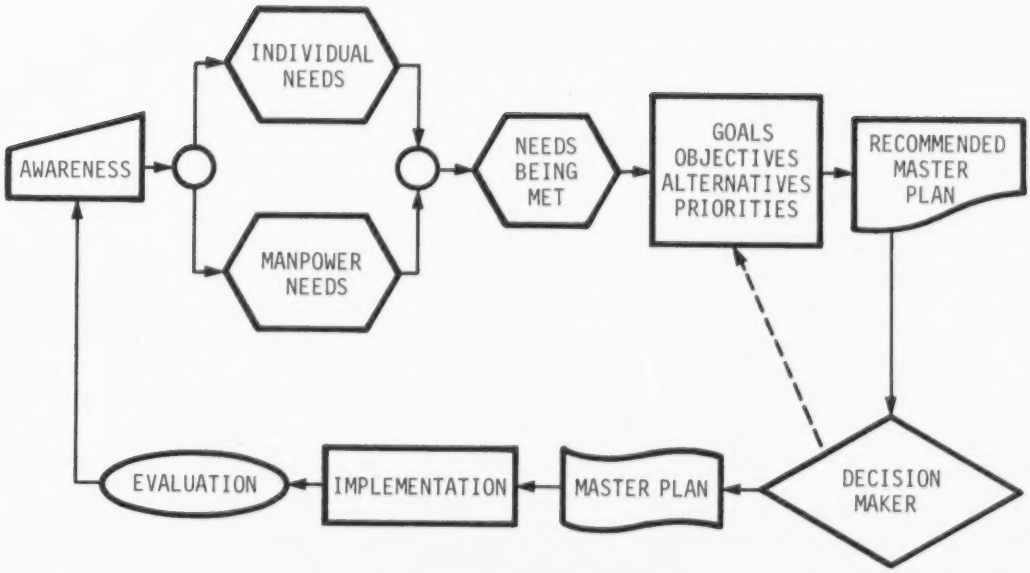


Figure 6. Systems Approach to Professional Personnel Development
State of Oklahoma

SUGGESTED FEDERAL AND STATE ACTION[1]

CONCLUSIONS

Evaluation of the total personnel development system within our profession indicates that there is neither the quantity nor quality of personnel required to move forward the vocational component of the educational system. Qualified administrators, teachers, and ancillary personnel are in short supply.

In the past, personnel development not only for vocational education but for the whole educational enterprise has been an open system with very little planning. It is obvious that this concept must change to one of detailed planning and an organized system. No longer can the preparation of vocational staffing be left to chance. The key to such a system is PLANNING.

Since plans are based on need, it is obvious that the NEED of a personnel development system is one of the first, if not the central, consideration. As such, the needs at the preservice and in-service levels must be ascertained in greater detail than ever before. Short- and long-range goals need to be established and the necessary structure assured to achieve such goals at given periods of time.

COORDINATION or the maximum utilization of all available personnel development resources is an apparent part of the effort. The leadership of the endeavor (referred to as the coordinator here), remains the key to a successful program, not only to centralize the planning but to implement and move it forward. As such, someone at some designated location assumes the responsibility for the entire personnel development enterprise. Anything short of such an accountable designate tends to place the program in the position of either having too many helmsmen or no one guiding the endeavor. Duplication of effort or haphazard development has permitted the ship to flounder for too long on an uncharted course.

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[1]Based on small group discussions held at the "Fourth Annual National Leadership Development Seminar for State Directors of Vocational Education." Las Vegas, Nevada, September 14-17, 1971. Group leaders were: State Directors, John W. Struck, Pennsylvania; Ernest G. Kramer, Washington; Cecil Johnson, South Carolina; and Neal D. Andrew, New Hampshire.

The implementation of a coordinated delivery system takes money. At the same time, it could well be realized that a properly coordinated and finely meshed system might take less funding than do duplication and poor development. If needs are identified and plans well laid, more accountability can be expected. State and federal funds probably will always be in demand, but their maximum use is at issue here.

The last component of the state plan for personnel development is that of ASSESSMENT. Assessment provides the "quality control" aspect of the effort and as such identifies the weak links, soft spots and places where adjustments and stripping away of the inappropriate or obsolete and replacing and refurbishing with the new and improved are required. Education has been slow to react to such realities of change. In other words, the system will need adjusting from time to time and the assessment component of the equation will tell exactly where such adjustments should be made.

The entire equation will thus read:

Planning
+
Needs
+
Coordination = A STATE PERSONNEL DEVELOPMENT SYSTEM
+
Funding
+
Assessment

RECOMMENDATIONS

The following recommendations are made in the hope that they will aid in the establishment and further refinement of a comprehensive state personnel development system in vocational education.

1) The state director of vocational education should assume the responsibility for developing the system by:

   a) Assigning the planning function to a staff or staff members;

   b) Assisting in need identification--particularly in determining long- and short-range goals and objectives;

   c) Identifying and budgeting needed finances.

2) A coordinator for personnel development should be named as the person held accountable for the implementation and operation of the system.

3) Emphasis should be given to the need for specialized personnel development in both urban and rural settings.

4) School administrators at all levels should be included in the endeavor. General as well as vocational school administrators must be included in the program.

5) Teacher educators should be included in the personnel development activities since they need updating as much as any of the population being served.

6) An advisory council should be formulated consisting of representatives from professional development institutions and agencies, employers of the product, students, and the state agency for vocational education. The purpose of the council should be to coordinate and periodically appraise the personnel development system.

7) The rewards emanating from a personnel development program should be performance-based, measured in terms of competency and not accumulation of credits or degrees. Evaluation of the system should be structured with this in mind.

8) In the spirit of a comprehensive statewide personnel development system--so should there be some sort of a national effort. To assist in the establishment of national goals and objectives, there should be periodic national meetings and conferences for the respective state coordinators to discuss common problems and linkages which will benefit the national educational system as a whole.

SOURCE MATERIALS

Betz, E., et al. *Seven Years of Research on Work Adjustment.* Minneapolis, Minnesota: Industrial Relations Center, University of Minnesota, 1966.

Brown, Donald V. *University - Industry: A Teaching Partnership.* Final report to the U.S. Office of Education, Project No. 520200, Knoxville, Tennessee: University of Tennessee, 1970.

Conners, John F. *The Role of Industry in a Comprehensive Vocational Education Personnel Development and Utilization System.* Paper presented at the National Workshop on Comprehensive Vocational Education Development and Utilization, Washington, D.C., 1971.

Coster, John K. *The Development of a Vocational-Technical Education Personnel Development Program in a State.* North Carolina: Center for Occupational Education, 1969.

Dawis, R. V., et al. *A Theory of Work Adjustment.* Minneapolis, Minnesota: Industrial Relations Center, University of Minnesota, 1968.

Dees, Sherwood. "Sparking State Initiative--An Education Bureaucracy Innovates." *The Courage to Change--New Directions for Career Education.* Roman C. Pucinski and Sharlene P. Hirsch, eds. Englewood Cliffs, N.J.: Prentice-Hall, 1971.

James, Don F. *Identification Development and Implementation of Elements in Effective Comprehensive Personnel Development Systems.* Paper presented at the National Workshop on Comprehensive Vocational Education Development and Utilization, Washington, D.C.: 1971.

Lessinger, Leon M. "Teacher in an Age of Accountability." *Instructor.* (June/July) 1971.

Marland, Sidney P., Jr. Paper presented at the 1971 Convention of the National Association of Secondary School Principals, Sam Houston Coliseum, Houston, Texas, Saturday, January 23, 1971, 10:00 A.M. 1971.

36/37

Nevin, John J. "Zenith's Malcontent." *New York Times.* Section F. Sunday, July 25, 1971, p. 7.

N.J.E.A. Review. "NJEA Speaks Out on . . . Teacher Evaluation." Vol. 44, No. 5 (1971) pp. 15-18.

Parks, Darrell L. *A State Model for Professional Personnel Development in Vocational Education.* Paper presented at the National Workshop on Comprehensive Vocational Education Professional Personnel Development and Utilization, Washington, D.C., 1971.

Parnell, Dale. *Confusion on the Bridge.* Paper presented at the Fourth Annual National Leadership Development Seminar for State Directors of Vocational Education, Las Vegas, 1971.

Pratzner, Frank C. *A Performance Base for Staff Differentiation.* Paper presented at the Fourth Annual National Leadership Development Seminar for State Directors of Vocational Education, Las Vegas, 1971.

Shoemaker, Byrl R. *Management by Objectives and Personnel Development for Vocational Education.* Paper presented at the Fourth Annual National Leadership Development Seminar for State Directors of Vocational Education, Las Vegas, 1971.

Somers, G. G. "Critique of Manpower Projections for Instructional Staff in Vocational Education." *Vocational Teacher Education.* R. N. Evans and David R. Terry, eds. Urbana, Illinois: University of Illinois, 1971.

U.S. Office of Education. *The Education Professions.* An annual report on the people who serve our schools and colleges, 1969-70, as required by the Education Professions Development Act. Washington, D.C.: Superintendent of Documents. OE - 58032-70, 1970.

_____. *Summary Data, Vocational Education, Fiscal Year 1970.* Washington, D.C.: Division of Vocational and Technical Education, 1971.